

**Dr. Sammy M. Ray
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Testimony

**Before the Committee on Resources
United States House of Representatives**

**Hearing on “the Status of the Eastern Oyster
(*Crassostrea virginica*) and the Petition to list the Eastern Oyster
as Endangered or Threatened under the Endangered Species Act.”**

July 19, 2005

Honorable members of the Resource Committee:

As an oyster research scientist with nearly 60 years of experience, I oppose the petition to include the eastern oyster as an endangered or threatened species under the Endangered Species

Act (ESA). My opposition is based on three claims: (1) the oyster is in no way a threatened or endangered species, (2) listing the oyster as endangered species is a misuse of and possibly a threat to the ESA, and (3) a drastic, geographically-broad "solution" (banning all oyster harvest) is proposed for a geographically-narrow failure (oyster, freshwater and water quality management in Chesapeake Bay).

The eastern oyster is not endangered or threatened. On the contrary, oysters are one of the most common invertebrates in mesohaline (5-25 ppt) environments. They occur in prodigious numbers, are extremely fecund, form massive reefs and support valuable fisheries. In Louisiana alone, 10 to 12 million pounds of oyster meat are harvested year after year. Furthermore, Texas has landed a minimum of about 3 million pounds of oyster meat for the past 10 years. Recent commercial harvests (calendar years 2003 and 2004) have amounted to about 4.3 and 5.1 million pounds of meat, respectively. Moreover, the 2005 Texas production is likely to exceed 5 million pounds of meat due to favorable rainfall conditions for the past two years.

The ESA should be reserved for species that are truly threatened or endangered. If the eastern oyster is considered endangered, then the designation criteria are so broad as to make the ESA biologically meaningless and politically vulnerable.

Valuable, viable and sustainable oyster fisheries exist over much of the range of the eastern oyster. Designation of the eastern oysters as endangered would destroy successful oyster industries of the Gulf and Atlantic States without saving the industry of Chesapeake Bay.

Oyster populations in the Chesapeake, except for moderate recoveries in the 60's and 70's, have steadily declined since 1957. In the last 10 – 15 years the decline has been precipitous and has just about hit "rock bottom". The reasons generally given for this population collapse are: (1) over-fishing, (2) pollution and (3) diseases.

This sad situation prevails despite the fact that Chesapeake Bay was the first estuary to be selected for rehabilitation and special protection through the National Estuary Program. Through this program and many other Federal, State, and private conservation initiatives, millions have been expended in efforts to restore this great estuary to a semblance of its former productivity. Many of the various approaches that have been used throughout the years to bring back the Chesapeake oysters appear to have been based on the best scientific information available, yet none have proven successful. These tremendous recovery efforts have been a colossal "failure". Yet, in desperation, some must believe that declaring the eastern oyster "endangered" will solve the Chesapeake's monumental environmental problems.

I find it difficult to understand the rationale for this approach. Declaring the eastern oyster as endangered throughout its broad range will do nothing to correct the environmental problems of Chesapeake Bay. If the proponents of this measure truly believe that cessation of oyster harvest will possibly promote its recovery, why not have the states of Maryland and Virginia halt all oyster harvesting from Chesapeake Bay and its tributaries. It is my understanding that the most recent annual oyster harvest from the bay amounted to about 50,000 bushels. So as not to harm the "watermen" who depend on oysters for a livelihood, subsidize the estimated oyster harvest at a premium of \$50.00 per bushel. We pay farmers not to grow crops, I see nothing wrong with paying oystermen not to harvest oysters.

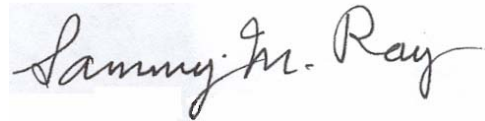
In Texas and other Gulf States oyster production is cyclical and is positively related to rainfall amounts. In periods of prolonged droughts populations decline due to ravages of predators and dermo disease. In extremely wet years we experience freshwater kills in the upper regions of the bays. In either case, the recruitment following return to normal salinity conditions often result in commercial quantities of oysters within two years. As long as we have adequate freshwater inflows into Texas bays substantial oyster populations will exist. Without doubt oyster production is tied to rainfall cycles.

Although not part of this hearing I cannot resist commenting on the proposal to bring in the Asian oyster (*Crassostrea ariakensis*) to augment the Chesapeake's oyster population. In my opinion this would be a horrible ecological mistake. This oyster is a cold-water, fast-growing and

thin-shelled oyster. It may be disease resistant but I am convinced that it is not mud-worm (*Polydora*) resistant. I wish to remind the proponents of this importation of the results of bringing the pacific oyster (*Crassostrea gigas*) to the Gulf of Mexico. In the early 1930's Dr. Martin Burkenroad brought the pacific oyster to Louisiana. He found that the mud-worm was very destructive to this cold-water, fast growing and thin-shell oyster. Let's learn from our mistakes, not repeat them.

In summary, I consider the petition to list the eastern oyster as endangered to be biologically unjustifiable, procedurally inappropriate, politically unwise and economically devastating. I strongly urge its immediate denial.

Respectfully,

A handwritten signature in black ink that reads "Sammy M. Ray". The signature is written in a cursive style with a light blue rectangular highlight behind it.

Sammy M. Ray, Ph.D

Professor Emeritus

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